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**Météo France**

## **User guide**

### **OpenAM installation automation scripts**

Version 1.0

30/09/2015

Identifier : –

Original file : 13814-01\_MeteoFrance\_Scripts-OpenAM\_User-guide\_v1.4.odt

## History and visas

### Visas

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### History

VERSION	DATE	CONTRIBUTOR	EVOLUTION
0.1	28/09/2015	Guy GODFROY	Creation
1.0	30/09/2015	Guilhem VALENTIN	Approval and validation
1.1	14/10/2015	Guy GODFROY	Modification
1.2	08/01/2016	Guy GODFROY	Modification
1.4	06/10/2016	Yves GOUPIL, Michaël CLAUDON	Modification

Status of document : **51 - Validated**

### Diffusion

NAME	ORGANIZATION	MEDIA
All project collaborator	LINAGORA	e-mail, LinShare
All project collaborator	Météo France	e-mail, LinShare

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## 1 Introduction

This document describes the procedure for downloading sources, compiling and packaging the open source software OpenAM.

OpenAM is an authentication, authorization and federation software.

It is maintained and developed by the company ForgeRock as an OpenSource software.

For more information regarding this product, you can refer to the following documentation :

- <https://en.wikipedia.org/wiki/OpenAM>
- <http://openam.forgerock.org/>

## 2 Prerequisites

### 2.1 Repository

The repository used is the official ForgeRock GitHub repository. It is available at the following URL:

- <https://github.com/OpenRock/OpenAM>

This repository is a mirror of the SVN repository hosted by ForgeRock:

- <https://svn.forgerock.org/openam>

### 2.2 Prerequisites

**Note:** the scripts to build OpenAM package do not depend on the scripts to build OpenDJ package and their dependencies. They only depend on the elements listed in this chapter.

#### 2.2.1 Yum dependencies

Git and Java JDK must be installed on the server:

```
# yum install git
# yum install java-1.7.0-openjdk-devel
```

Tools are also needed to package the software:

```
# yum install rpm-build rpmdevtools
```

#### 2.2.2 Maven-install.sh

The following script downloads Maven and install it in `/opt` directory on the local host.

```
./maven-install.sh
```

The `PATH` will be updated during compilation or packaging phases : the file `openam.spec` performs 2 exports that configure the `PATH` in order to use Maven. This can alternatively be configured in `.bashrc` or `.bash_profile` files to provide access to Maven for other needs than the scripts described in this document.

As a regular user, it is possible you don't have access to `/opt` directory. As root, run :

```
chmod 777 /opt/*
```

#### 2.2.3 Tomcat / Dedicated user

OpenWIS is configured to be run as `openwis` user, whose home folder path is `/home/openwis`. Additionally, Tomcat 7.0.59 must be installed in this folder.

## 2.3 Scripts installation

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Scripts can be untarred in any folder.

```
tar zxvf build-openam*.tar.gz
```

## 3 Detailed procedure

All this procedure can be run as a regular user (for example, as `openwis` user).

You have to add rights to run shell scripts as a regular user. In `build-scripts/opendj-build` folder :

```
chmod 755 *.sh
```

### 3.1 Configuration

#### 3.1.1 Script configuration

This script are configured by the parameters in the file `OpenDJ-config`. It must be setup in order to match the target environment.

<code>GIT=/usr/bin/git</code>	<i>#GIT PATH variable</i>
<code>REPO=https://github.com/OpenRock/OpenAM.git</code>	<i>#repository location</i>
<code>TAG=12.0.0</code>	<i>#tag/version OpenAM repository</i>
<code>OPENAM_FOLDER=OpenAM</code>	<i>#position of the build path relatively to the repo</i>

The variable `OPENAM_FOLDER` must be modified depending of ForgeRock modifications to the repository that happen sometimes. If defined like this, it means that the build folder is right into the repository folder. You also have to change that value in the file `openam.spec` at the beginning of `%build` and `%install` sections.

#### 3.1.2 Packaging configuration

The packaging process relies on rpm tooling that is configured in the file `openam.spec`.

You can modify the `user:group` according to your own regular user and group, just change the fields in the line beginning with the `chown` command.

## 3.2 Sources download

You can download the sources by executing this command:

```
./openam-00-download.sh
```

Like `OpenDJ` script, it will proceed step by step in order to automatically download the appropriate version from the git repository.

## 3.3 Source compilation

Note: this step must be performed only if you don't want to create the package. The packaging phase includes its own compilation process.

Once the sources are downloaded, make sure you have Maven installed on you system in order to handle the compilation.

You can start building by launching this command:

```
./openam-01-build.sh
```

Maven compilation is very long and needs a instruction file to be patched. This operation will be automatically performed by the compilation script.

### 3.4 Packaging

---

To create the RPM packet, simply run:

```
./openam-02-package.sh
```

This script will initiate a building environment (rpmbuild) and call the package creation.

This step is very long because it implies building from sources.

After this script, binary package will be located at `rpmbuild/RPMS`. You will be then able to use it on your machines to deploy OpenAM.

The `webapps` directory default path assumes that you have a regular Tomcat6 installation. You have to modify this path in the file `openam.spec` before packaging if you have a custom Tomcat installation.

### 3.5 All in one

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This script will do every steps described above:

```
./openam-all.sh
```

### 3.6 Additional notes

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To install the packet, run as root, in `$HOME/rpmbuild/RPMS/` directory :

```
# rpm -i OpenAM-12.0.0-1.el6.x86_64.rpm
```

It will create user `openwis` if it doesn't exists yet, then place the OpenAM war file in `/home/openwis/apache-tomcat-7.0.59/webapps/` so Tomcat can use it. It will also create a folder `middleware` in the `openwis` home folder containing some useful tools.

To uninstall the packet:

```
# rpm -e OpenAM
```